IN THE CLAIMS

The following listing of claims is provided in accordance with 37 C.F.R. §1.121:

1.   (currently amended)   A system for performing engine baseline modeling, comprising:

an engine service database that contains engine data;

a preprocessor for processing the engine data into a predetermined format; and

an engine baseline modeling component that builds an engine baseline model <u>for an ideal engine</u> from the preprocessed data, wherein the engine baseline model relates engine performance variables as a function of engine operating conditions.

2.   (original)   The system according to claim 1, wherein the preprocessor comprises a data acquisition component that extracts the engine data from the engine service database.

3.   (original)   The system according to claim 1, wherein the preprocessor comprises a data scrubbing component that cleans the engine data.

4.   (original)   The system according to claim 1, wherein the preprocessor comprises a data segmenting component that segments the engine data into a plurality of groups.

5.   (original)   The system according to claim 1, wherein the engine baseline model is a regression model.

6.   (original)   The system according to claim 1, wherein the engine baseline modeling component comprises a metric component that validates the engine baseline model.

7.   (original)   The system according to claim 1, wherein the engine baseline modeling component comprises a heuristics component that generates rules for cleaning the preprocessed data.

8.   (original)   The system according to claim 1, further comprising a model diagnostics component that evaluates the performance of the of the engine baseline model.

9.   (currently amended)   A system for performing engine baseline modeling, comprising:

an engine service database that contains engine data;

a preprocessor for processing the engine data into a predetermined format;

an engine baseline modeling component that builds an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

a model diagnostics component that evaluates the performance of the of the engine baseline model.

10.   (original)   The system according to claim 9, wherein the preprocessor comprises a data acquisition component that extracts the engine data from the engine service database.

11.   (original)   The system according to claim 9, wherein the preprocessor comprises a data scrubbing component that cleans the engine data.

12.   (original)   The system according to claim 9, wherein the preprocessor comprises a data segmenting component that segments the plurality of engine data into a plurality of groups.

13.   (original)   The system according to claim 9, wherein the engine baseline modeling component comprises a metric component that validates the engine baseline model.

14.   (original)   The system according to claim 9, wherein the engine baseline modeling component comprises a heuristics component that generates rules for cleaning the preprocessed data.

15.   (currently amended)   A system for performing engine baseline modeling of an aircraft engine, comprising:

an engine service database that contains aircraft engine data;

a preprocessor for processing the aircraft engine data into a predetermined format, wherein the preprocessor corrects the aircraft engine data to standard conditions derived for an aircraft engine;

an engine baseline modeling component that builds an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

a model diagnostics component that evaluates the performance of the of the engine baseline model.

16.   (original)   The system according to claim 15, wherein the engine baseline modeling component comprises a metric component that validates the engine baseline model.

17.   (original)   The system according to claim 15, wherein the engine baseline modeling component comprises a heuristics component that generates rules for cleaning the preprocessed data.

18.   (currently amended)   A system for performing engine baseline modeling of an aircraft engine, comprising:

an engine service database that contains aircraft engine data;

a preprocessor for processing the aircraft engine data into a predetermined format, wherein the preprocessor corrects the aircraft engine data to standard conditions derived for an aircraft engine;

an engine baseline modeling component that builds an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions, and the engine baseline modeling component comprising a metric component to validate the engine baseline model; and

a model diagnostics component that evaluates the performance of the of the engine baseline model.

19.   (currently amended)   A system for performing engine baseline modeling of an aircraft engine, comprising:

means for storing aircraft engine data;

means for preprocessing the aircraft engine data into a predetermined format, wherein the preprocessing means corrects the aircraft engine data to standard conditions derived for an aircraft engine;

means for building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

means for evaluating the performance of the of the engine baseline model.

20.   (original)   The system according to claim 19, wherein the building means comprises means for validating the engine baseline model.

21.   (original)   The system according to claim 19, wherein the building means comprises means for generating rules for cleaning the preprocessed data.

22.   (currently amended)   A method for performing engine baseline modeling, comprising:

storing engine data;

preprocessing the engine data into a predetermined format; and

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data, wherein the engine baseline model relates engine performance variables as a function of engine operating conditions.

23.   (original)   The method according to claim 22, wherein the preprocessing comprises extracting the engine data from an engine service database.

24.   (original)   The method according to claim 22, wherein the preprocessing comprises cleaning the engine data.

25.   (original)   The method according to claim 22, wherein the preprocessing comprises segmenting the engine data into a plurality of groups.

26.   (original)   The method according to claim 22, wherein the engine baseline model is a regression model.

27.   (original)   The method according to claim 22, further comprising validating the engine baseline model.

28.   (original)   The method according to claim 22, further comprising generating rules for cleaning the preprocessed data.

29.   (original)   The method according to claim 22, further comprising evaluating the performance of the of the engine baseline model.

30.   (currently amended)   A method for performing engine baseline modeling, comprising:

storing engine data;

preprocessing the engine data into a predetermined format;

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

evaluating the performance of the of the engine baseline model.

31.   (original)   The method according to claim 30, wherein the preprocessing comprises extracting the engine data from an engine service database.

32.   (original)   The method according to claim 30, wherein the preprocessing comprises cleaning the engine data.

33.   (original)   The method according to claim 30, wherein the preprocessing comprises segmenting the engine data into a plurality of groups.

34.   (original)   The method according to claim 30, further comprising validating the engine baseline model.

35.   (original)   The method according to claim 30, further comprising generating rules for cleaning the preprocessed data.

36.   (currently amended)   A method for performing engine baseline modeling of an aircraft engine, comprising:

storing aircraft engine data;

preprocessing the aircraft engine data into a predetermined format, wherein the preprocessing corrects the aircraft engine data to standard conditions derived for an aircraft engine;

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

evaluating the performance of the of the engine baseline model.

37.   (original)   The method according to claim 36, further comprising validating the engine baseline model.

38.   (original)   The method according to claim 36, further comprising generating rules for cleaning the preprocessed data.

39.   (currently amended)   A method for performing engine baseline modeling of an aircraft engine, comprising:

storing aircraft engine data;

preprocessing the aircraft engine data into a predetermined format, wherein the preprocessing corrects the aircraft engine data to standard conditions derived for an aircraft engine;

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions;

validating the engine baseline model; and

generating model diagnostics from the engine baseline model.

40. (currently amended) A method for performing engine baseline modeling of an engine, comprising:

presenting a user with aircraft engine data;

prompting the user to select engine performance variables and engine operating conditions from the aircraft engine data to model;

in response to the user selection, preprocessing the engine data into a predetermined format; and

using a regression to build an engine baseline model <u>for an ideal engine</u> from the data.

41. (original) The method according to claim 40, wherein the preprocessing comprises cleaning the engine data.

42. (original) The method according to claim 40, further comprising validating the engine baseline model.

43. (original) The method according to claim 40, further comprising generating rules for cleaning the preprocessed data.

44. (original) The method according to claim 40, further comprising evaluating the performance of the of the engine baseline model.

45. (original) The method according to claim 44, further comprising displaying results from the evaluation to the user.

46. (currently amended) A computer-readable medium storing computer instructions for instructing a computer system to perform engine baseline modeling, the computer instructions comprising:

storing engine data;

preprocessing the engine data into a predetermined format; and

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data, wherein the engine baseline model relates engine performance variables as a function of engine operating conditions.

47.   (original)   The computer-readable medium according to claim 46, wherein the preprocessing comprises instructions for extracting the engine data from an engine service database.

48.   (original)   The computer-readable medium according to claim 46, wherein the preprocessing comprises instructions for cleaning the engine data.

49.   (original)   The computer-readable medium according to claim 46, wherein the preprocessing comprises instructions for segmenting the engine data into a plurality of groups.

50.   (original)   The computer-readable medium according to claim 46, wherein the engine baseline model is a regression model.

51.   (original)   The computer-readable medium according to claim 46, further comprising instructions for validating the engine baseline model.

52.   (original)   The computer-readable medium according to claim 46, further comprising instructions for generating rules for cleaning the preprocessed data.

53.   (original)   The computer-readable medium according to claim 46, further comprising instructions for evaluating the performance of the of the engine baseline model.

54. (currently amended) A computer-readable medium storing computer instructions for instructing a computer system to perform engine baseline modeling, the computer instructions comprising:

storing engine data;

preprocessing the engine data into a predetermined format;

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

evaluating the performance of the of the engine baseline model.

55. (original) The computer-readable medium according to claim 54, wherein the preprocessing comprises instructions for extracting the engine data from an engine service database.

56. (original) The computer-readable medium according to claim 54 wherein the preprocessing comprises instructions for cleaning the engine data.

57. (original) The computer-readable medium according to claim 54, wherein the preprocessing comprises instructions for segmenting the engine data into a plurality of groups.

58. (original) The computer-readable medium according to claim 54, further comprising instructions for validating the engine baseline model.

59. (original) The computer-readable medium according to claim 54, further comprising instructions for generating rules for cleaning the preprocessed data.

60. (currently amended) A computer-readable medium storing computer instructions for instructing a computer system to perform engine baseline modeling, the computer instructions comprising:

storing aircraft engine data;

preprocessing the aircraft engine data into a predetermined format, wherein the preprocessing corrects the aircraft engine data to standard conditions derived for an aircraft engine;

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions; and

evaluating the performance of the of the engine baseline model.

61. (original) The computer-readable medium according to claim 60, further comprising instructions for validating the engine baseline model.

62. (original) The computer-readable medium according to claim 60, further comprising instructions for generating rules for cleaning the preprocessed data.

63. (currently amended) A computer-readable medium storing computer instructions for instructing a computer system to perform engine baseline modeling, the computer instructions comprising:

storing aircraft engine data;

preprocessing the aircraft engine data into a predetermined format, wherein the preprocessing corrects the aircraft engine data to standard conditions derived for an aircraft engine;

building an engine baseline model <u>for an ideal engine</u> from the preprocessed data using a regression analysis, wherein the regression analysis relates engine performance variables as a function of engine operating conditions;

validating the engine baseline model; and

generating model diagnostics from the engine baseline model.

64.   (currently amended)   A computer-readable medium storing computer instructions for instructing a computer system to perform engine baseline modeling, the computer instructions comprising:

presenting a user with aircraft engine data;

prompting the user to select engine performance variables and engine operating conditions from the aircraft engine data to model;

in response to the user selection, preprocessing the engine data into a predetermined format; and

using a regression to build an engine baseline model <u>for an ideal engine</u> from the preprocessed data.

65.   (original)   The computer-readable medium according to claim 64, wherein the preprocessing comprises instructions for cleaning the engine data.

66.   (original)   The computer-readable medium according to claim 64, further comprising instructions for validating the engine baseline model.

67.   (original)   The computer-readable medium according to claim 64, further comprising instructions for generating rules for cleaning the preprocessed data.

68. (original)   The computer-readable medium according to claim 64, further comprising instructions for evaluating the performance of the of the engine baseline model.

69. (original)   The computer-readable medium according to claim 68, further comprising instructions for displaying results from the evaluation to the user.

70. (currently amended)   A system for performing baseline modeling of a process, comprising:

a service database that contains data relating to the process;

a preprocessor for processing the data into a predetermined format; and

a baseline modeling component that builds a baseline model <u>for an ideal engine</u> from the preprocessed data, wherein the baseline model relates process performance variables as a function of process operating conditions.

71. (original)   The system according to claim 70, wherein the preprocessor comprises a data acquisition component that extracts the data from the service database.

72. (original)   The system according to claim 70, wherein the preprocessor comprises a data scrubbing component that cleans the data.

73. (original)   The system according to claim 70, wherein the preprocessor comprises a data segmenting component that segments the data into a plurality of groups.

74. (original)   The system according to claim 70, wherein the baseline model is a regression model.

75. (original)   The system according to claim 70, wherein the baseline modeling component comprises a metric component that validates the baseline model.

76. (original)   The system according to claim 70, wherein the baseline modeling component comprises a heuristics component that generates rules for cleaning the preprocessed data.

77. (original)   The system according to claim 70, further comprising a model diagnostics component that evaluates the performance of the of the baseline model.

78. (currently amended)   A method for performing baseline modeling of a process, comprising:

storing process data;

preprocessing the process data into a predetermined format; and

building a baseline model for an ideal process from the preprocessed data, wherein the baseline model relates process performance variables as a function of process operating conditions.

79. (original)   The method according to claim 78, wherein the preprocessing comprises extracting the process data from a service database.

80. (original)   The method according to claim 78, wherein the preprocessing comprises cleaning the process data.

81. (original)   The method according to claim 78, wherein the preprocessing comprises segmenting the process data into a plurality of groups.

82. (original)   The method according to claim 78, wherein the process baseline model is a regression model.

83.   (original)   The method according to claim 78, further comprising validating the baseline model.

84.   (original)   The method according to claim 78, further comprising generating rules for cleaning the preprocessed data.

85.   (original)   The method according to claim 78, further comprising evaluating the performance of the of the baseline model.

86.   (currently amended)   A computer-readable medium storing computer instructions for instructing a computer system to perform baseline modeling of a process, the computer instructions comprising:

storing process data;

preprocessing the process data into a predetermined format; and

building a baseline model <u>for an ideal engine</u> from the preprocessed data, wherein the baseline model relates process performance variables as a function of process operating conditions.

87.   (original)   The computer-readable medium according to claim 86, wherein the preprocessing comprises instructions for extracting the process data from a service database.

88.   (original)   The computer-readable medium according to claim 86, wherein the preprocessing comprises instructions for cleaning the process data.

89.   (original)   The computer-readable medium according to claim 86, wherein the preprocessing comprises instructions for segmenting the process data into a plurality of groups.

90.   (original)   The computer-readable medium according to claim 86, wherein the baseline model is a regression model.

91.   (original)   The computer-readable medium according to claim 86, further comprising instructions for validating the baseline model.

92.   (original)   The computer-readable medium according to claim 86, further comprising instructions for generating rules for cleaning the preprocessed data.

93.   (original)   The computer-readable medium according to claim 86, further comprising instructions for evaluating the performance of the of the baseline model.